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Manufacturing: The Year 2012 in Review

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.	not available for any reference period
..	not available for a specific reference period
...	not applicable
0	true zero or a value rounded to zero
0[s]	value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
p	preliminary
r	revised
x	suppressed to meet the confidentiality requirements of the *Statistics Act*
E	use with caution
F	too unreliable to be published
*	significantly different from reference category ($p < 0.05$)

About this article

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Manufacturing: The Year 2012 in Review

by Michael Schimpf, John Seay and Stephanie Ventresca

1 Summary

Canadian manufacturing activity expanded at a slower pace in 2012 compared with previous years. In 2012, Canadian manufacturing sales were $593.8 billion, up 3.5% from sales posted in 2011. Fourteen of 21 industries posted higher sales in 2012, with transportation equipment, petroleum and coal products and fabricated metal products leading the way. Nevertheless, manufacturing sales, both in current and constant dollar terms remain below their pre-recession peaks. The gains in 2012 were partly offset by declines in the primary metal, paper, and computer and electronic product industries.

Annual manufacturing sales increased in seven provinces in 2012, though over two-thirds of the national gain was concentrated in Ontario. Higher sales in Alberta, Saskatchewan, and Newfoundland and Labrador also contributed substantially to the national rise.

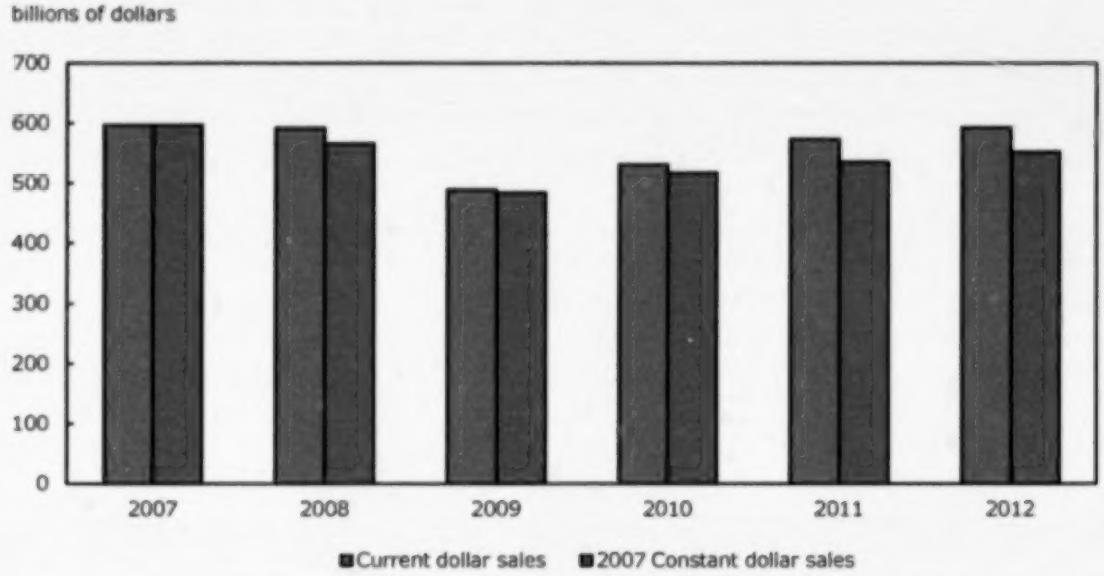
Other indicators also suggest that the recovery in manufacturing is continuing. By December 2012, manufacturing inventories had edged up 1.2% compared with the level in December 2011. The small gain over the course of 2012 contrasts with the 8.6% rise during 2011 and the 3.4% gain in 2010. Unfilled orders advanced 7.1% in 2012, reflecting substantial gains in the aerospace product and parts industry. Capital expenditures and foreign direct investment also posted gains in 2012, though operating profits were down compared to 2011. Employment in the sector did rise in 2012, though the increase lagged behind the gains in employment for the economy a whole. Finally, the trade deficit for manufactured goods widened further in 2012.

2 Manufacturing sales advance at a slower rate in 2012

Total Canadian manufacturing sales increased 3.5% in 2012 to $593.8 billion dollars, the third consecutive annual gain[1,2]. Although sales were up in 2012, the increase was less than the 8.0% rise in 2011 and the 8.6% advance in 2010. Since the low reached in 2009, manufacturing sales rose 21.4% over the 2010 to 2012 period.

1. Data in this paper are not seasonally adjusted, unless otherwise noted.
2. Current dollar sales data in this section are from Statistics Canada, Manufacturers' sales, inventories, orders and inventory to sales ratios (CANSIM Table 304-0014).Constant dollar sales data are from Statistics Canada, Real manufacturing sales, orders, inventory owned and inventory to sales ratio (CANSIM table 377-0009).

Chart 1
Current and constant dollar sales



Sources: Statistics Canada, CANSIM tables 304-0014 and 377-0009.

Constant dollar sales for the manufacturing sector rose 3.0% in 2012. Since the relative low reached in 2009, constant dollar sales have risen 13.9%, a slower rate than the 21.4% gain in current dollar sales. Hence, taking prices into account, the real growth in sales was about two-thirds of the increase in current dollar manufacturing sales.

3 Durable goods industries mostly responsible for the sales gain

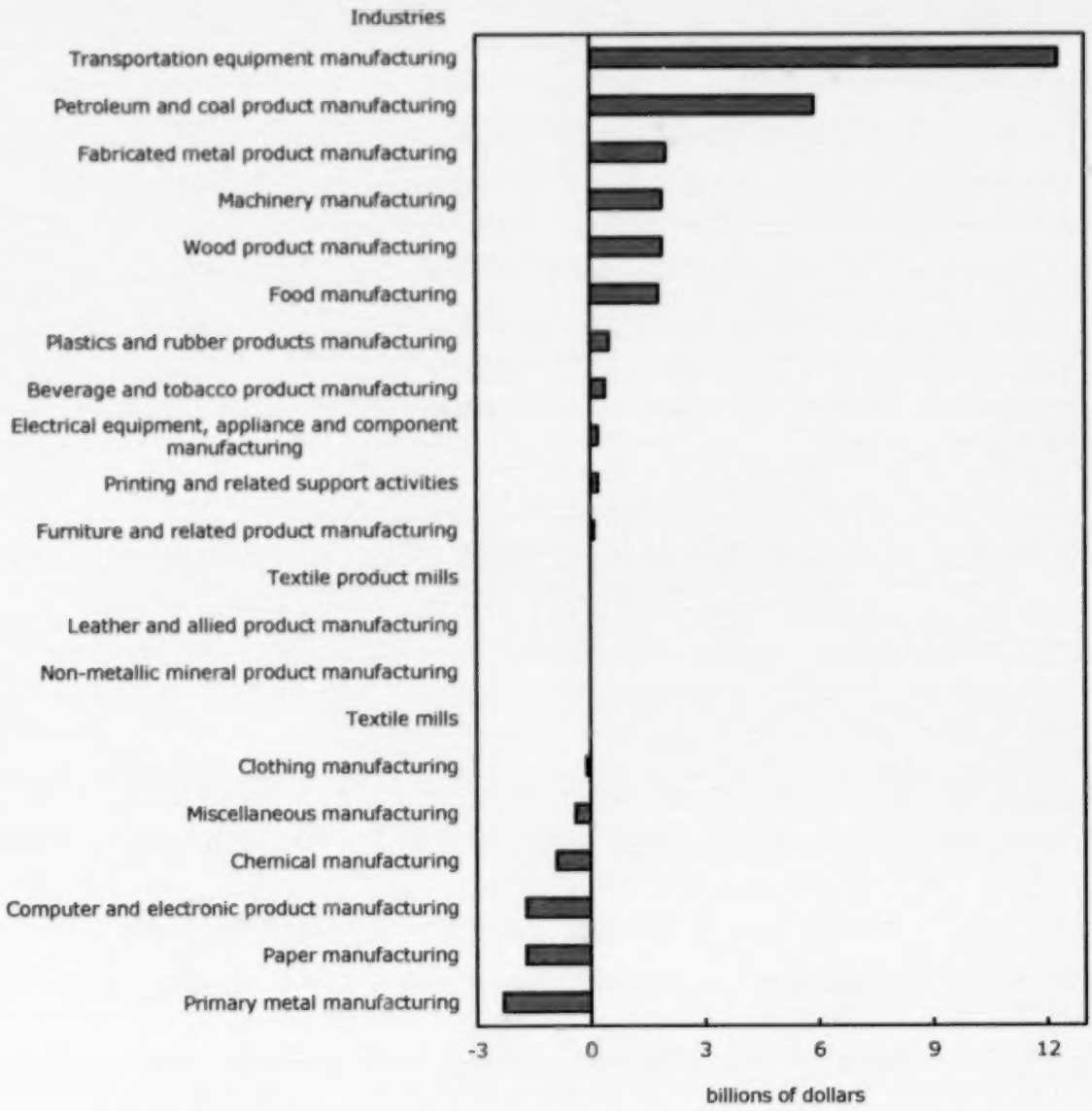
The manufacturing sector is divided into two portions, the durable goods industries and the non-durable goods industries. The durable goods industries were mostly responsible for the sales gain in 2012.[3]

Durable goods were up 4.9% to $299.7 billion, led by gains in transportation equipment. Higher sales of transportation equipment contributed approximately 88% to the increase in durable goods sales. Both motor vehicle assembly sales and motor vehicle parts manufacturers reported increased sales in 2012. Other contributors to the increase in the durable goods industries included the fabricated metal product, machinery, and wood product industries. A 4.8% decrease in primary metal sales and a decline in the computer and electronic product industry partially offset the gains on the durable goods side of manufacturing.

For non-durable goods industries, sales rose 2.1% to $294.1 billion, largely reflecting a 7.5% rise in petroleum and coal products sales. Over two-thirds of the increase in petroleum and coal product sales reflected higher volumes of product sold while the remainder reflected a 1.6% rise in prices. Food sales were up 2.1% in 2012, largely on the strength of higher prices, while sales were down 6.7% in the paper industry and 2.0% in the chemical industry.

3. **The durable goods industries** comprise the following industries: Wood products, non-metallic mineral products, primary metals, fabricated metal products, machinery, computer and electronic products, electrical equipment, transportation equipment, furniture and related products, and miscellaneous products. **The non-durable goods industries** include: Food, beverage and tobacco, clothing, textile mills, textile products, leather and allied products, paper, printing, petroleum and coal product, chemicals and plastics and rubber products.

Chart 2
Dollar change from 2011 by industry



Source: Statistics Canada. CANSIM table 304-0014.

4 Industries with sales gains in 2012

Fourteen of 21 manufacturing industries posted higher sales in 2012, led by the transportation equipment industry. Sales were also up in the petroleum and coal product, fabricated metal product, machinery, wood product, and food industries.

4.1 Transportation equipment industry led the gains

In 2012, sales of transportation products rose $12.3 billion (+13.4%) to $104.0 billion, the largest increase by an industry. Four of the seven sub-industries which make up transportation equipment manufacturing reported gains, led by the motor vehicle assembly and motor vehicle parts manufacturing industries. The gains were mostly characterized by higher volumes of product sold as prices for the transportation equipment industry edged up 1.1% in 2012. The increase in volumes is reflected in a rise in the capacity utilization rate, from 83.5% in 2011 to 90.8% in 2012.[4] High industrial capacity utilization is generally viewed as a positive sign as it signifies greater efficiency throughout the manufacturing process.

Table 1
Sales in the transportation equipment industry

	2009	2010	2011	2012	Change, 2011 to 2012	Percent change, 2011 to 2012
	millions of dollars					
Industries						
Transportation equipment manufacturing	74,280.5	84,682.6	91,719.8	104,013.2	12,293.4	13.4
Motor vehicle manufacturing	33,743.5	43,674.0	45,815.3	53,898.9	8,083.6	17.6
Motor vehicle body and trailer manufacturing	2,557.9	3,091.7	3,221.6	3,639.2	417.6	13.0
Motor vehicle parts manufacturing	17,160.1	19,263.5	20,270.3	25,028.9	4,758.6	23.5
Aerospace product and parts manufacturing	15,624.8	13,691.5	15,838.2	15,513.5	-324.7	-2.1
Railroad rolling stock manufacturing	1,055.1	1,156.5	1,525.8	1,412.1	-113.8	-7.5
Ship and boat building	1,237.2	1,048.2	1,138.9	1,177.8	38.9	3.4
Other transportation equipment manufacturing	2,902.0	2,757.1	3,909.7	3,342.9	-566.9	-14.5

Source(s): Statistics Canada, CANSIM table 304-0014.

Sales by motor vehicle manufacturers advanced 17.6% to $53.9 billion in 2012. After reaching a peak of $78.3 billion in 1999, sales had trended downwards in subsequent years. Following two consecutive decreases of approximately 25% in both 2008 and 2009, during the recession, 2010 marked a recovery year for the industry. Sales advanced 29.4% to $43.7 billion that year.

The large increase seen in motor vehicle manufacturing sales in 2012 coincided with increased demand for motor vehicles in the United States. Exports of passenger cars and light trucks to the United States increased 19.2% to $45.6 billion. According to the United States Census Bureau, U.S. retail sales for auto and other motor vehicles increased by 8.4% in 2012.[5] Over the past two decades, U.S. retail sales for auto and other motor vehicles only decreased in 2008 and 2009, coinciding with the economic downturn. However, three consecutive years of advancing retail sales have returned the US market to nearly its pre-recessionary 2007 level, indicating a stronger U.S. demand for autos. Since the vast majority of Canadian motor vehicle production is exported to the United States, the increase in demand there was important for Canadian motor vehicle manufacturing. Furthermore, trade data for 2012 shows that passenger cars and light truck exports to Mexico increased 21.3%, making Mexico the second largest importer of Canadian automotive products after the United States.[6]

Sales in motor vehicle parts manufacturing posted the second largest dollar gain in 2012 of the transportation equipment sub-industries, advancing $4.8 billion (+23.5%) to $25.0 billion. Sales in this sub-industry had peaked in 2004 at $31.6 billion, but they subsequently declined to $17.2 billion in 2009. However, 2010 was a rebound year for motor vehicle parts manufacturing, with sales climbing 12.3% to $19.3 billion. A smaller gain of 5.2% was reported in 2011 to $20.3 billion, partly reflecting supply disruptions following the tsunami in Japan in March 2011. Indeed, manufacturers in the motor vehicle parts industry reported a shortage of parts in April and May 2011 affected their ability to produce orders.

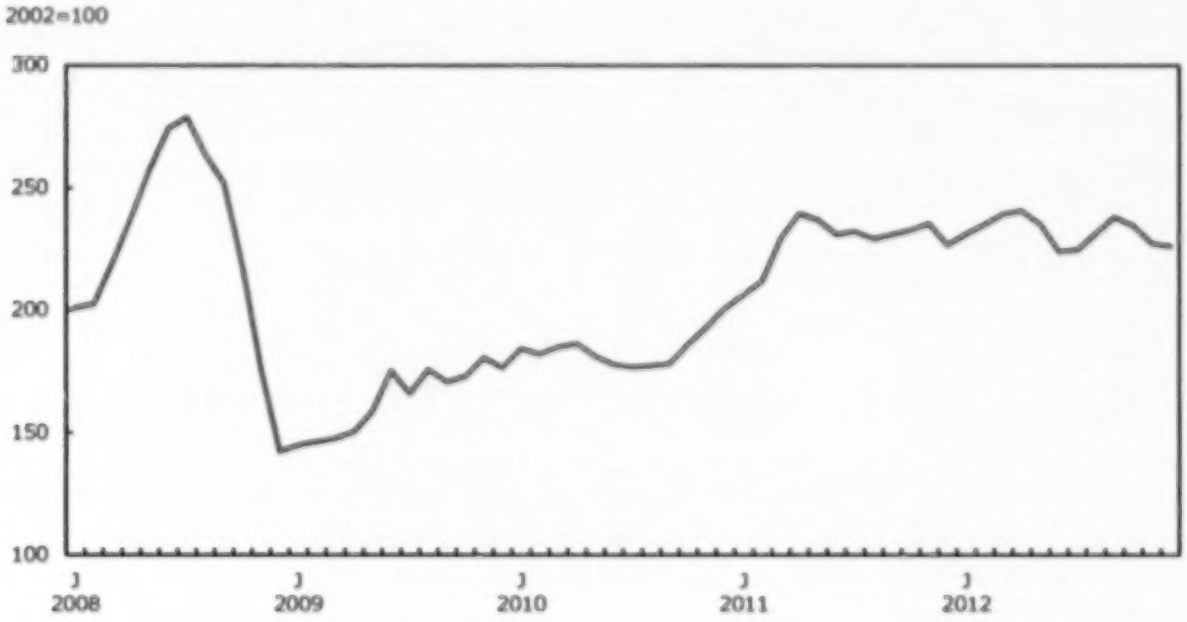
4. Capacity utilization data here and elsewhere in this paper are from Statistics Canada, CANSIM Table 028-0002.
5. U.S. retail data are from the US Census Bureau: Monthly Retail Trade and Food Services Survey.
6. Trade data for the United States and Mexico were compiled by the International Trade Division at Statistics Canada.

Production in aerospace products and parts declined 2.1% to $15.5 billion in 2012. This decline comes after a 15.7% increase in 2011, after decreases in both 2009 and 2010. A peak in the aerospace industry of $18.6 billion was reached in 2008. Exports of aerospace products and parts rose 6.8% in 2012, following decreases in the previous two years.[7]

4.2 Petroleum and Coal product sales rise on volumes

Petroleum and coal product manufacturers reported a 7.5% increase in sales to $85.3 billion in 2012. Prices for the petroleum and coal products industry were relatively stable in 2012, increasing 1.6% over 2011. The overall increase in sales predominantly reflected higher volumes of product sold. In contrast, in 2011 the 16.6% rise in sales for the industry was price-driven, as prices advanced 24.2% over 2010.

Chart 3
Price index for petroleum and coal products



Source: Statistics Canada, CANSIM table 329-0057.

4.3 Fabricated Metals sales continue to advance

Fabricated metal product manufacturing sales advanced for the third year in a row, increasing from $33.0 billion in 2011 to $35.0 billion in 2012 (+6.1%). Sales of fabricated metals in 2012 were only 3.8% lower than the peak of $36.4 billion reached in 2008. Advancing sales were related to higher volumes of products sold, as industry prices actually decreased 0.2%. The increase in volumes is also reflected by a gain in capacity utilization for the industry. Capacity utilization rose to 81.8% in 2012 from 77.8% in 2011.

7. Trade data are from Statistics Canada, Merchandise imports and exports (CANSIM Table 228-0059).

Sales in the architectural and structural metals manufacturing sub-industry currently comprise almost two-fifths of all sales in the fabricated metals industry and also account for the largest dollar value increase, rising $820 million (+6.4%) in 2012. Machine shops, turned products and screw, nut and bolt manufacturing as well as other fabricated metal product manufacturing sales also increased, rising $568 million and $506 million respectively between 2011 and 2012.

4.4 Machinery sales rise

In 2012, machinery sales increased $1.9 billion (+5.6%) to $35.3 billion dollars. The increase in sales largely reflects higher volumes of product sold as industry prices increased by only 1.7%. The annual average industrial capacity utilization rate for machinery also increased, rising for the third year in a row. In 2012, the capacity utilization rate for the industry was up 2.7% to 83.9%.

The agricultural, construction and mining machinery manufacturing sub-industry (ACMMM industry), was largely responsible for the overall increase in machinery sales. Sales rose $1.2 billion (+10.7%) to $12.2 billion in 2012 in the ACMMM industry, almost two-thirds of the total sales gain in machinery manufacturing as a whole. Sales of Agricultural implements, construction equipment, and mining and oil and gas field machinery categories each contributed about one-third of the gain in the sub-industry. This contrasts with 2011, when sales were led by mining and oil and gas field equipment. This shift might stem from the fact that capital expenditures in the oil and gas extraction sector, which is a major source of demand for oil and gas equipment, were up by less than half a billion dollars in 2012. In comparison, capital expenditures in the oil and gas sector had risen much more substantially in 2011, up about $9.6 billion. Thus, both demand and sales for oil and gas equipment grew more rapidly in 2011 compared to 2012.

Table 2
Capital expenditures in the oil and gas extraction sector

	2008	2009	2010	2011	2012 [1]	2013 [2]
	millions of dollars					
Oil and gas extraction	50,196	30,749	48,280	57,848	58,335	58,812
Conventional oil and gas extraction	29,532	20,198	31,125	35,257	33,182	31,185
Non-conventional oil extraction	20,663	10,551	17,155	22,591	25,154	27,627

1. Data are preliminary actual expenditures.
2. Data are preliminary intended expenditures.
Source(s): Statistics Canada, CANSIM table 029-0007.

The other general-purpose machinery manufacturing sub-industry accounted for the second largest increase in machinery manufacturing sales, up $882 million (+13.8%) to $7.3 billion in 2012. The advance follows an $880 million increase in 2011.

A portion of the gains in machinery manufacturing were offset by a 15.6% decline in engine, turbine and power transmission equipment manufacturing. Sales in the industry were $2.4 billion in 2012, representing 6.8% of total machinery sales.

4.5 Wood Products sales rise on price and volume

Wood product manufacturing sales increased 10.1% from $18.5 billion to $20.3 billion in 2012, the highest level since 2008, and the second largest percentage increase in the manufacturing sector in 2012. Increases in the industry were a result of higher prices and volumes sold. Prices rose 5.7% between 2011 and 2012. In addition, volumes were up in 2012, reflecting an 8.8% advance in capacity utilization in the industry that year.

Positive signs of growth were widespread, with increases in sales extending to all sub-industries within the wood product manufacturing industry. Gains were highest in other wood product manufacturing which increased $745 million (+12.4%), while veneer, plywood and engineered wood product manufacturing increased $654 million (+17.3%) and sawmill and wood preservation which increased $471 million (+5.4%). By comparison, while 2011 saw increases in other wood product manufacturing and sawmill and wood preservation, these were offset by decreases in veneer, plywood and engineered wood manufacturing.

4.6 Food sales continue their steady rise

Food manufacturing sales increased in 2012 by 2.1% to $87.3 billion. The gain was mostly due to a 2.3% advance in prices for food products. The increase in 2012 was lower than the historical average of 3.6% per year over the 2003 to 2012 decade; nevertheless, food sales in 2012 were more than double their value two decades ago. Over the past two decades, there have only been two annual decreases in food manufacturing sales, small declines of 0.8% in 2005 and 0.1% in 2007.

The food sub-industry that drove the 2012 increase was grain and oilseed milling, with sales advancing $1.1 billion (+12.8%) to a record high of $10.1 billion. This was followed by an increase in dairy product manufacturing by 4.7% to $14.7 billion, also a record high for this sub-industry. Finally, sales in the animal food manufacturing industry were up $557 million to $7.2 billion in 2012. In the largest sub-industry, meat product manufacturing, sales decreased 3.0% to $23.4 billion.

5 Industries with sales declines

5.1 Primary metal sales fall on lower volumes

Primary metals posted the largest decrease in sales in dollar terms among manufacturing industries, falling $2.3 billion (-4.8%) in 2012 to $46.3 billion. The drop was attributable to decreases in alumina and aluminum sales as well as non-ferrous metals (except aluminum) production sub-industries. In both instances, the decreases largely reflected lower prices. Prices in alumina and aluminum production and processing fell 10.8%, while prices in non-ferrous metal (except aluminum) production and processing were down 9.3%. These sales decreases were partially offset by smaller increases in all other sub-industries in the primary metals sector, such as iron and steel mills (+5.6%) and steel product manufacturing (+7.9%).

5.2 Paper sales continue their downward trend

Paper manufacturing sales exhibited the second largest absolute decrease in the manufacturing industry, falling $1.7 billion (-6.7%) to $24.2 billion in 2012. This continues an ongoing decline in the paper industry in which sales have decreased in eight of the last ten years, with $10.1 billion less in sales in 2012 than in 2002. In 2012, prices in the paper industry decreased only 0.8%. Lower volumes were the most important factor in explaining the decline in sales.

5.3 Computer and electronic product sales continue their downward trend

Manufacturing sales for computer and electronic product manufacturing fell 10.9% in 2012 to $13.7 billion. The decline is consistent with a reduction in capacity utilization rate to 83.3% from 89.6% in 2011. Lower sales of communications equipment were largely responsible for the decline. This latest decrease for computer and electronic products reflected a downward trend in the industry following 2000. In 2000, the industry had reached an all-time high of $37.3 billion of annual sales. Since then, sales for the industry have decreased each year. Of particular note were declines of 27.5% and 16.2% in 2001 and 2002. Decreases in more recent years were smaller. Sales in 2012 were just over one-third of the level posted in 2000.

5.4 Chemical sales decline

Chemical manufacturing sales declined by 2.0% to $45.9 billion in 2012. Over the last ten years, the largest chemical manufacturing sales decrease was in 2009, when the industry decreased 14.4% from its pre-recession level of $48.6 billion in 2008. Since 2009, the industry has partly recovered, with increases of 6.7% in 2010 and 5.5% in 2011. In dollar terms, the pharmaceutical and medicine manufacturing sub-industry drove the decrease in 2012, with a 7.8% slip in sales to $7.9 billion. Although the largest sub-industry with regards to sales, basic chemical manufacturing followed with the second largest decrease in dollar terms declining 3.6% to $15.4 billion.

5.5 Lower sales in the miscellaneous industry

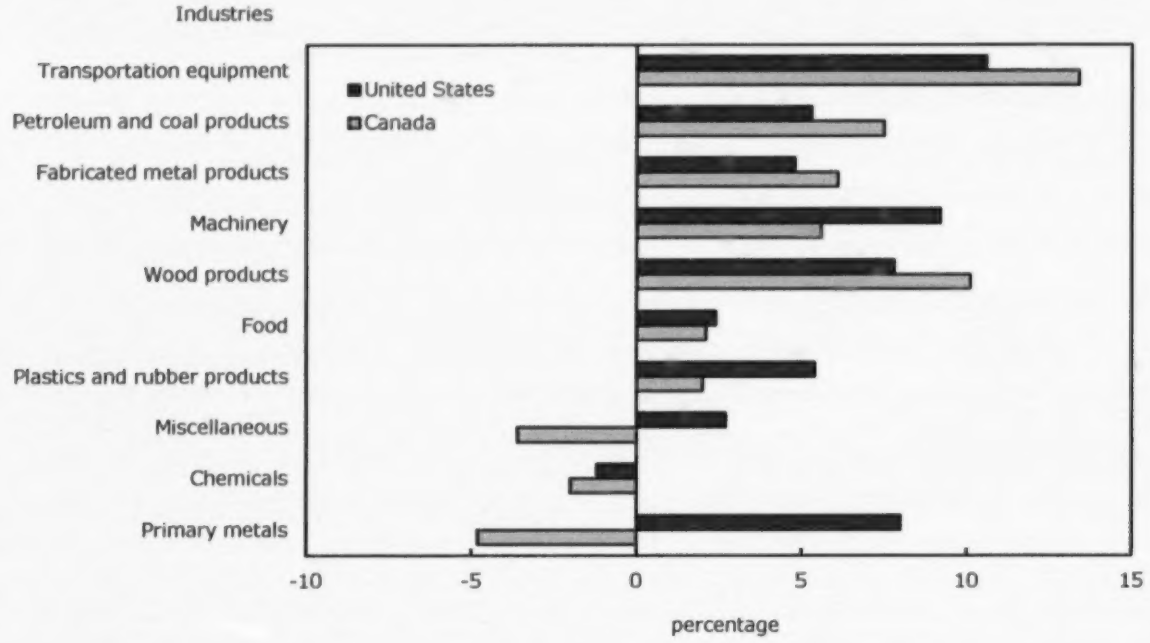
Miscellaneous manufacturing sales decreased 3.6% to $11.3 billion. Over the past two decades, this industry has historically trended upwards, reaching its highest sales level in 2011 at $11.7 billion. The larger of the two sub-industries in miscellaneous manufacturing, other miscellaneous manufacturing, was responsible for this decrease. Other miscellaneous manufacturing includes establishments manufacturing a diverse range of products such as jewellery, sporting goods and toys. Sales in the sub-industry declined 5.3% to $8.3 billion. This sub-industry also posted its best year in 2011 with a record high of $8.8 billion. Sales in the second sub-industry, medical equipment and supplies manufacturing, rose 1.5% to a record high of $3.0 billion in 2012.

6 Composition of 2012 sales growth different in the United States

In 2012, the composition of sales growth in Canada was similar to the composition of growth in the United States, though there were several major differences as well.[8] In the U.S., where manufacturing sales are referred to as shipments, sales advanced 4.3% to US$5.7 trillion in 2012. As in Canada, the increase was less than previous years as it followed advances of approximately 11% and 12% in 2010 and 2011 respectively. Key industries responsible for growth in the U.S. included the transportation equipment, petroleum and coal product, primary metal, and machinery industries.

8. U.S. sales data are not seasonally adjusted and are from the U.S. Census Bureau: Manufacturers' shipments, inventories and orders survey. Canadian sales data in this section are from Statistics Canada, Manufacturers' sales, inventories, orders and inventory to sales ratios (CANSIM Table 304-0014).

Chart 4
Annual growth rates in 2012 for selected industries



Sources: Statistics Canada, CANSIM table 304-0014 and the US Census Bureau, Manufacturers' Shipments, Inventories, and Orders survey.

As in Canada, the U.S. sales in the transportation equipment industry rose substantially. Sales increased 10.6% to US$764.0 billion in 2012, an increase that was somewhat lower than the 13.4% advance in Canada. All major sub-industries published by the U.S. Census Bureau saw increases, led by a 10.5% gain to US$492.2 billion in the motor vehicles and parts sub-industry. In addition, nondefense aircraft was up 24.1% to US$126.7 billion.

Petroleum and coal products manufacturing also rose in the U.S. manufacturing, with sales up 5.3% to US$881.4 billion. The gain was less than the 7.5% advance for the industry in Canada. Food (+2.4%) also added to the growth of non-durable sales. Chemical products, which were up 11.3% in 2011, reversed course and were down 1.2% in 2012. For both industries, the trend in U.S. sales was similar to trends for the industries in Canada.

However, sales trends for some industries were quite different in the U.S. Sales in the U.S. primary metals industry advanced 8.0% to $302.4 billion, contributing to growth of the U.S. durable goods sector in 2012. In particular, aluminum and nonferrous metals drove the expansion of primary metals, with sales increasing 19.7% to US$142.4 billion dollars. In contrast, sales for the primary metals industry in Canada declined 4.8%.

In the U.S., the machinery industry sales grew by 9.2% to $399.3 billion in 2012. While the machinery industry increased in both countries, the source of this increase differed between the two. An advance in sales of the construction machinery sub-industry by 36.6% drove the growth of the industry in the U.S. In Canada, as well as sales gains in construction equipment, the growth was also driven by higher sales of mining, oil and gas field equipment, and agricultural equipment.

7 Two-thirds of national gain is in Ontario

Annual manufacturing sales rose in seven provinces in 2012.[9] Over two-thirds of the national gain was concentrated in Ontario, reflecting higher sales in the transportation equipment industry. Because the increase in Ontario's manufacturing sales exceeded the national gain, the province's share of total manufacturing rose from 45.0% in 2011 to 45.8%, which contrasts with the overall downward trend in the province's share over the past 14 years. Sales gains in Alberta, Saskatchewan and Newfoundland and Labrador also contributed to the overall national increase in 2012.

In Alberta, a 3.4% rise in sales in 2012 largely reflected a 14.3% advance in the fabricated metal product industry, a 4.0% increase in the petroleum and coal products industry and a 31.6% increase in the wood product industry. Since reaching a low in 2009 of $1.9 billion, sales in the Alberta wood products industry have risen 62.9% to $3.1 billion.

Manufacturers in Saskatchewan reported a sales rise of 14.0% to 14.2 billion in 2012. The provincial increase was led by a 23.8% advance in food sales to $3.2 billion. A 13.1% rise in chemical manufacturing also contributed to the province's increase in 2012. Finally, machinery manufacturing was up 28.9% to $1.7 billion in 2012. In Newfoundland and Labrador, a 30.5% increase in provincial sales to $7.1 billion reflected a 33.1% gain in non-durable goods sales.

Table 3
Provincial sales

	2009	2010	Change from 2009 to 2010	2011	Change from 2010 to 2011	2012	Change from 2011 to 2012
	millions of dollars		percentage	millions of dollars	percentage	millions of dollars	percentage
Provinces							
Newfoundland and Labrador	4,357.9	5,141.8	18.0	5,420.8	5.4	7,075.2	30.5
Prince Edward Island	1,313.0	1,201.9	-8.5	1,227.3	2.1	1,307.8	6.6
Nova Scotia	8,971.9	9,727.7	8.4	10,769.9	10.7	10,439.5	-3.1
New Brunswick	14,323.4	17,314.4	20.9	19,979.8	15.4	19,752.2	-1.1
Quebec	127,268.0	133,293.8	4.7	140,636.5	5.5	140,409.2	-0.2
Ontario	219,445.5	243,152.7	10.8	258,416.1	6.3	272,221.4	5.3
Manitoba	14,752.8	14,433.6	-2.2	15,401.3	6.7	15,611.4	1.4
Saskatchewan	11,209.6	10,655.6	-4.9	12,446.6	16.8	14,188.3	14.0
Alberta	54,461.8	60,586.4	11.2	71,075.5	17.3	73,497.0	3.4
British Columbia	33,024.7	35,841.0	8.5	38,495.9	7.4	39,283.9	2.0

Source(s): Statistics Canada, CANSIM table 304-0015.

8 Inventories rise in 2012

Total inventory levels decreased during the economic downturn, largely as a result of lower inventories in the durable goods industries.[10] In 2012, seasonally adjusted inventories rose 1.2%, from $66.2 billion in December 2011, to $67.0 billion in December 2012.

Total inventories are composed of three stages of fabrication: raw materials, goods-in-process and finished products. Increases in raw materials and goods-in-process may signal higher future production and sales by manufacturers. Higher finished products are somewhat ambiguous in terms of interpretation. They may arise from increased manufacturing production and anticipated higher future sales. Alternatively, increases in finished products may reflect lower than expected sales or cancelled orders. By stage of fabrication, raw material inventories were down 3.9% to $25.9 billion over 2012, good-in-process inventories rose 6.4% to $18.6 billion, and finished product inventories were up 3.4% to $22.5 billion. The decrease in raw materials in 2012 only partly offset the gains in goods-in-process and finished products.

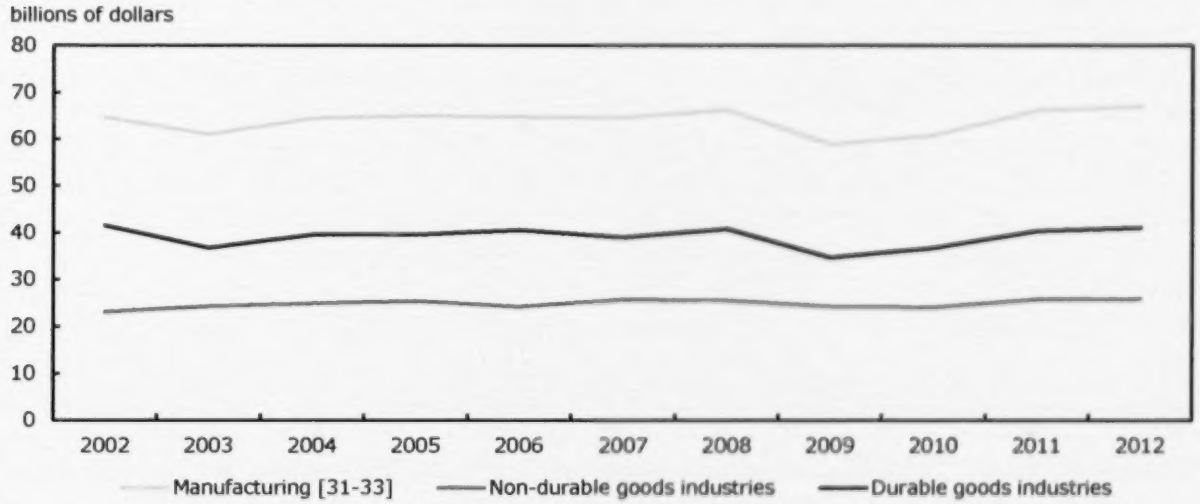
9. Provincial sales data are from Statistics Canada, Manufacturing sales, by North American Industry Classification System (NAICS) and province (CANSIM Table 304-0015).
10. All data in this section and the accompanying chart are seasonally adjusted. Inventory data are from Statistics Canada, Manufacturers' sales, inventories, orders and inventory to sales ratios (CANSIM Table 304-0014).

Over half of the decline in total raw material inventories was caused by declines in the petroleum and coal product industry (-23.5%) and the chemical industry (-11.3%). On the durable goods side of manufacturing, manufacturers reduced their raw materials on hand in the machinery (-8.1%), computer and electronic products (-11.8%), primary metal (-5.7%), and fabricated metal product (-4.8%) industries. A 9.5% advance in raw materials held by transportation equipment manufacturers and a 9.1% rise in wood product inventories offset some of the total decline in raw materials.

The 6.4% advance in goods-in-process inventories mostly reflected a rise in the transportation equipment industry (+15.6%). Higher inventories of goods-in-process in the wood product (+60.0%), non-metallic mineral products (+73.2%) and the petroleum and coal product (+17.8%) industries also contributed to the advance.

Finally, the 3.4% advance in finished product inventories largely reflected a 16.6% increase in the petroleum and coal product industry. This increase stemmed from higher volumes of products maintained at refineries. An increase in the primary metal industry (+6.8%) also contributed to the advance.

Chart 5
Inventories in December, seasonally adjusted



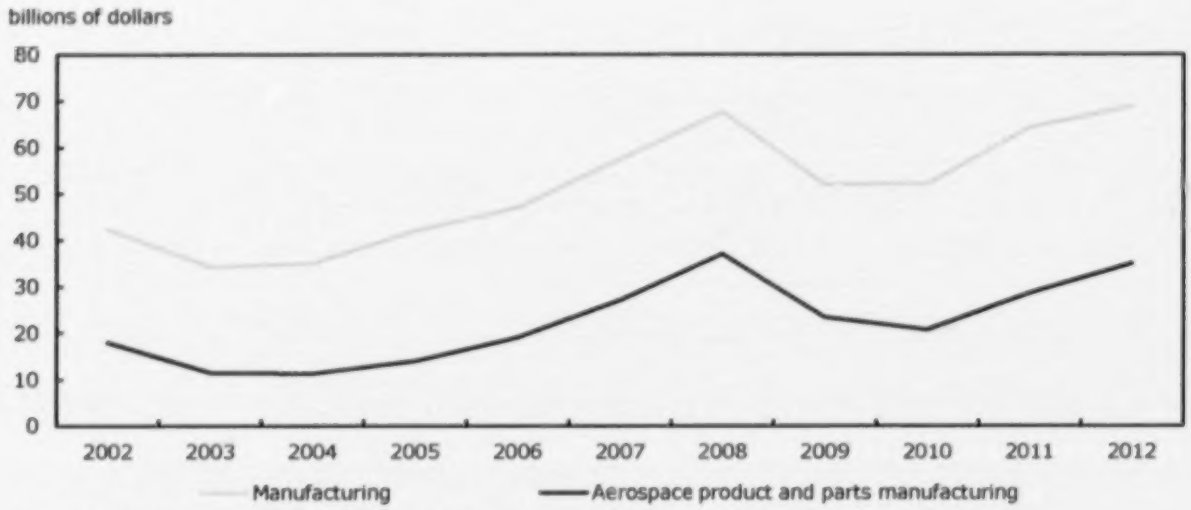
Source: Statistics Canada, CANSIM table 304-0014.

9 Unfilled Orders rise in 2012

Unfilled orders can be defined as a stock of orders that can contribute to future sales, providing that they are not cancelled.[11] As such, increases in unfilled orders suggest the potential for higher future sales. In 2012, unfilled orders rose 7.1% to $68.9 billion by December 2012. The gain in 2012 was less than the 23.0% advance in unfilled orders over the course of 2011 when the manufacturing sector emerged from the economic downturn. Much of the increase over both years was due to higher unfilled orders in the aerospace product and parts industry. Aerospace unfilled orders rose 68.9% between December 2010 and December 2012 to $35.0 billion. As a result, the share of aerospace unfilled orders out of total unfilled orders in the manufacturing sector increased from about 40% to 51%.

11. All data in this section and the accompanying chart are seasonally adjusted. Unfilled orders data are from Statistics Canada, Manufacturers' sales, inventories, orders and inventory to sales ratios (CANSIM Table 304-0014).

Chart 6
Unfilled orders in December, seasonally adjusted



Source: Statistics Canada, CANSIM table 304-0014.

10 Employment in manufacturing edges upward in 2012

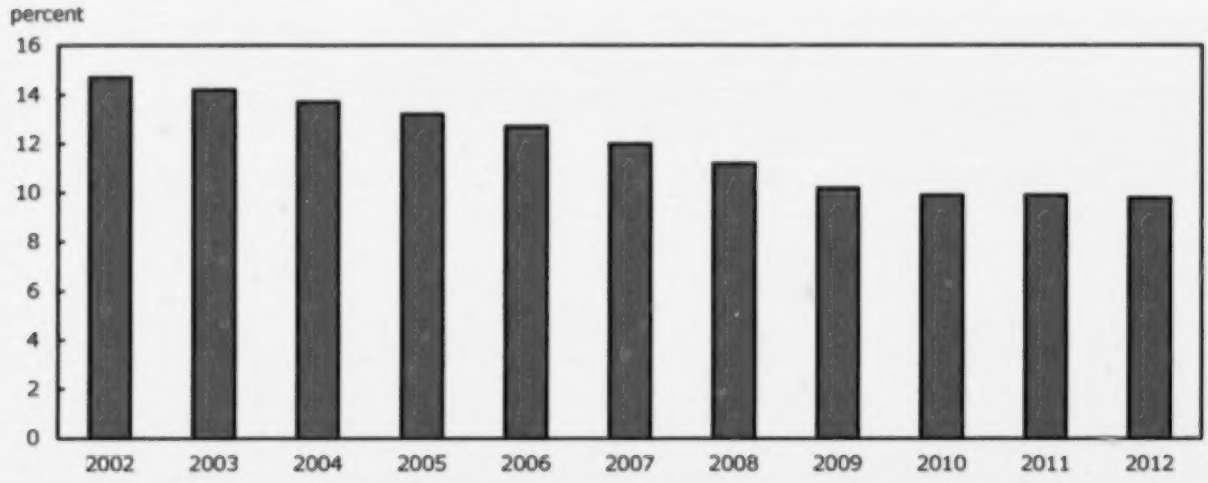
The total number of individuals employed in the manufacturing sector increased in 2012, rising 0.4% to 1.489 million workers.[12] Despite the increase in total employment, the rate of employment growth in the manufacturing sector slowed in comparison to 2011, when employment increased 1.2%. Furthermore, since employment growth in other economic sectors was greater than in the manufacturing sector, the share of manufacturing employment out of total employment in the Canadian economy edged down slightly from 9.9% to 9.8%. By way of comparison, manufacturing's share of total employment had been 12.0% in 2007, before the recession.

Machinery manufacturing led the increase in employment for the second year in a row, rising 4.4%, followed by transportation equipment manufacturing (+2.5%), fabricated metal products (+2.4%), and chemical manufacturing (+4.2%). Nevertheless, employment in these industries remained below pre-recession levels, despite a second consecutive year of employment growth. Within the transportation industry, the majority of growth was in the motor vehicle parts manufacturing sector (+4.6%) to a total of approximately 64.0 thousand jobs, the highest levels since 2008. Employment in the aerospace products and parts manufacturing sector also increased (+2.3%).

Provincially, the largest gains in manufacturing employment took place in Ontario, Alberta and Saskatchewan, while manufacturing jobs in Quebec continued to decline. The main contributor to the increase in employment in Ontario was transportation equipment manufacturing, followed by machinery manufacturing. In contrast, wood product, chemical and fabricated metal product industries were mostly responsible for the increase in employment in Alberta. The decrease in Quebec was attributable to food manufacturing, paper manufacturing, printing and related support activities, and primary metals.

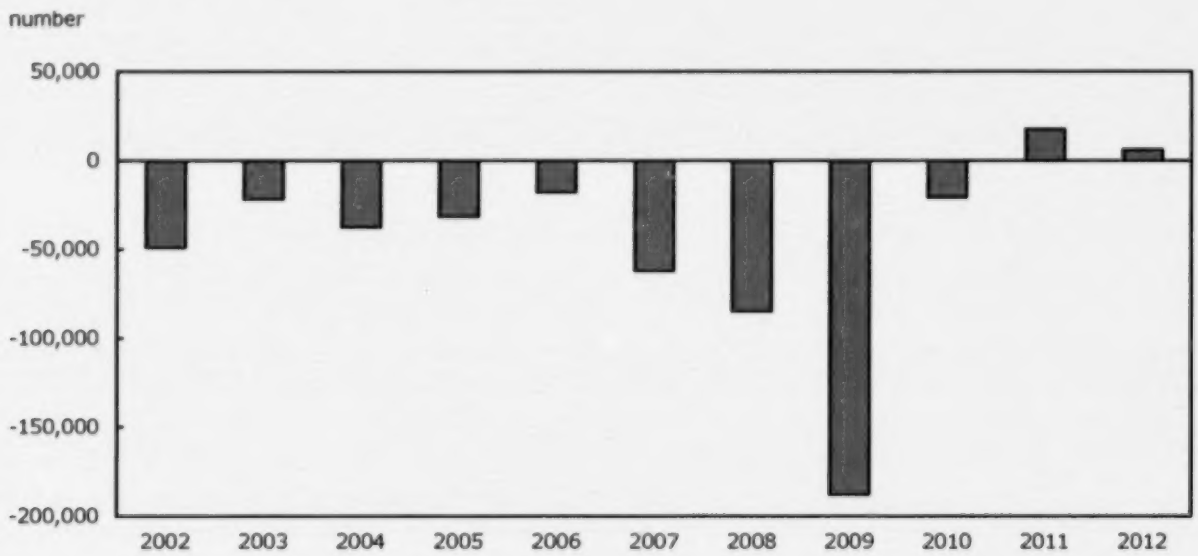
12. Employment data are from Statistics Canada: Survey of Employment, Payrolls and Hours (CANSIM Table 281-0023).

Chart 7
Manufacturing as a percentage of total employment



Source: Statistics Canada, CANSIM table 281-0023.

Chart 8
Change in the average annual number of manufacturing jobs



Source: Statistics Canada, CANSIM table 281-0023

11 Foreign direct investment

Of all economic sectors, manufacturing continued to account for the largest portion of foreign direct investment in Canada, accounting for 28.7% of total foreign investment in 2012.[13] Foreign investment in the Canadian manufacturing sector increased from $171.2 billion in 2011 to $181.6 billion in 2012, a 6.1% increase. About 46% of the increase originated from the United States. U.S. foreign investment rose from $68.6 billion in 2011 to $73.5 billion in 2012, a $4.8 billion (+7.0%) advance. Most of the rest of the increase in 2012 reflected higher European investment in Canadian manufacturing. European holdings advanced $4.3 billion (+5.0%) to $89.4 billion. Although the rise in European investment in 2012 was lower than the advance in American holdings, European direct investment continued to make up a larger proportion of total direct investment in the manufacturing sector.

Among manufacturing industries, the largest portion of total foreign direct investment was in the petroleum and coal industry[14] which accounted for $45.9 billion (25.3%) of manufacturing investment in 2012. Primary metals accounted for $31.7 billion (17.5%), followed by chemical manufacturing which accounted for $25.0 billion (13.7%) in 2012.

12 Investments continue to grow while profits decline

Capital expenditures in manufacturing continued to advance in 2012, up 15.4% to $20.4 billion.[15] This was the third consecutive increase of capital expenditures in manufacturing since 2009, the year they dropped 27.9%. In 2012, 16 out of the 20 major industries reported increases in capital expenditures. The primary metal industry led the advance in 2012, with capital expenditures up $422 million (+13.1%) to $3.6 billion. Other industries with gains in 2012 included petroleum and coal products, chemical, food, printing and wood product industries. Preliminary intentions for 2013 indicate that total manufacturing capital expenditures are forecasted to grow 2.4% to $20.9 billion.

Table 4
Capital expenditures for selected industries

	2008	2009	2010	2011	2012 [1]	2013 [2]
	millions of dollars					
Manufacturing	19,925	14,358	15,643	17,648	20,366	20,854
Primary metal manufacturing	1,918	1,176	2,086	3,221	3,643	3,466
Petroleum and coal products manufacturing	3,009	1,893	1,882	2,515	2,805	1,975
Chemical manufacturing	1,883	1,557	1,573	1,834	2,106	2,639
Food manufacturing	1,604	1,612	1,933	1,609	1,872	2,320
Printing and related support activities	584	494	477	231	484	384
Wood product manufacturing	844	514	723	534	755	712
Machinery manufacturing	707	699	571	608	820	799
Transportation equipment manufacturing	3,777	2,099	1,845	1,874	2,084	2,281

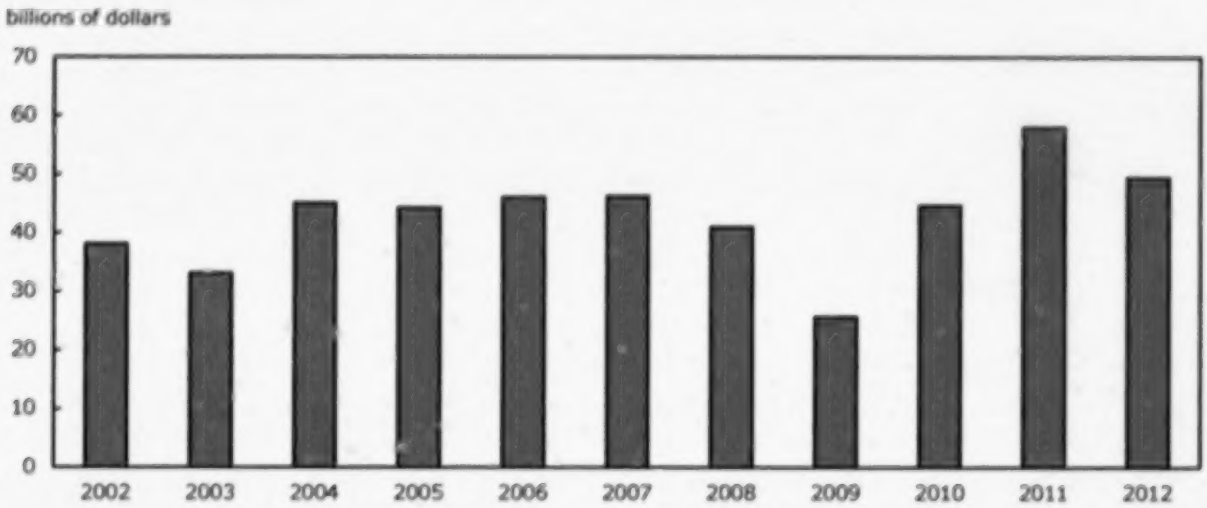
1. Data are preliminary actual expenditures.
2. Data are preliminary intended expenditures.

Source(s): Statistics Canada, CANSIM table 029-0009.

Operating profits for manufacturers declined by 14.6% to $49.5 billion in 2012. This was the first drop since 2009, when operating profits dropped 37.5% to $25.6 billion, the lowest level since 1994. The years following 2009 marked a recovery with operating profits for manufacturers advancing 74.6% in 2010 and 29.7% in 2011. Profits in 2011 reached their highest recorded level of $58.0 billion.

13. Foreign direct investment data are from Statistics Canada: International investment position, Canadian direct investment abroad and foreign direct investment in Canada (CANSIM Table 376-0052).
14. Note that the petroleum and coal products industry is primarily composed of refineries. Oil and gas extraction and related activities are **not** included in this industry. Oil and gas extraction is a separate economic sector, outside of manufacturing.
15. Data on capital expenditures are from Statistics Canada: Capital and repair expenditures (CANSIM Table 029-0009). Data on profits are from Statistics Canada: Quarterly balance sheet and income statement (CANSIM Table 187-0001).

Chart 9
Manufacturing operating profits



Source: Statistics Canada, CANSIM table 187-0001.

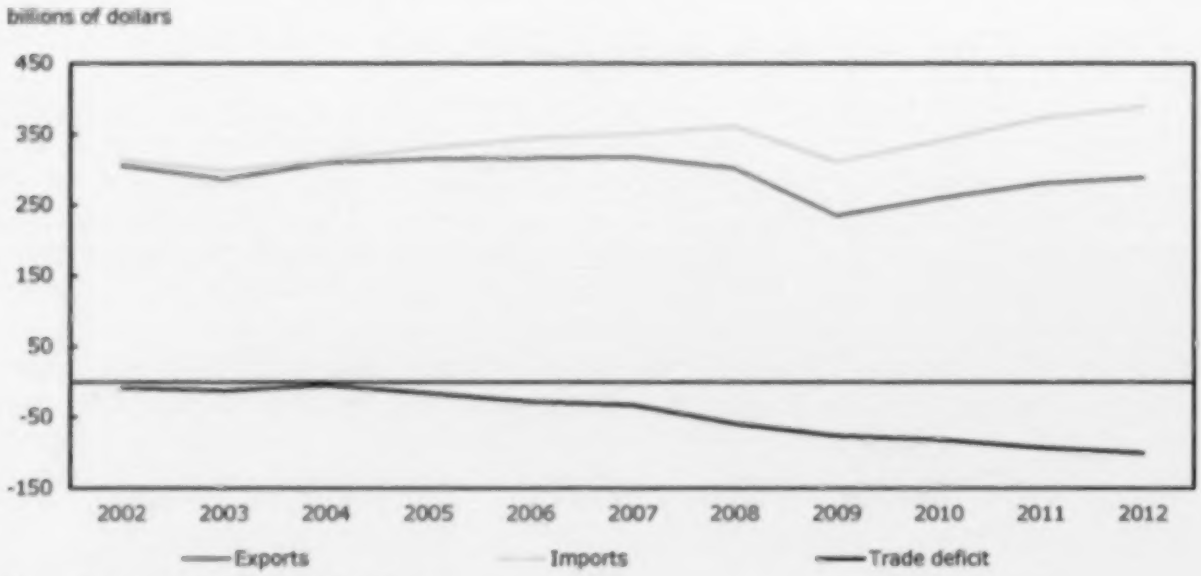
13 Canadian manufacturing trade deficit continues to increase

Canadian manufacturing exports increased for the third consecutive year in 2012, up 3.0% to $288.6 billion.[16] As the largest trading partner of Canada, exports to the U.S. comprised of 77.8% of total exports in 2012. Over the last decade, the share of Canadian manufacturing exports directed to the U.S. has trended downwards, decreasing from 87.7% in 2002. In contrast, manufacturing exports to China have been trending upwards over the past decade. In 2012, China's share of Canadian manufacturing exports was 3.4%, the second largest of all countries after the U.S. The share was up from 1.1% in 2002

Imports of manufactured goods have also increased for a third consecutive year, increasing 4.4% to $389 billion, a larger gain than the rise in exports. The trade deficit for manufactured goods had reached its most recent low of $4.5 billion in 2004 but since then, the deficit has widened and is now at a peak of $100.4 billion. Similarly to exports, imports from the United States comprise a smaller share of total imports compared with the level ten years ago. This reflects increasing shares of total imports from other countries, such as China and Mexico.

16. Data are from Industry Canada, Trade data online. See: *http://www.ic.gc.ca/eic/site/tdo-dcd.nsf/eng/home*.

Chart 10
Exports, imports and trade deficit for manufactured goods



Source: Industry Canada, Trade data online.

14 Conclusion

Certain indicators for the manufacturing sector rose in 2012. In particular, sales were up for the sector as a whole, though the increase was substantially less than the previous two years. In addition, manufacturers' unfilled orders also increased in 2012. Assuming that they are not cancelled, these orders will contribute to future sales. Finally, capital expenditures and foreign direct investment in manufacturing increased in 2012. However, employment growth in the manufacturing sector lagged behind growth in employment for the Canadian economy as a whole. Operating profits were down from the level of 2011 and the trade deficit for manufactured goods widened in 2012. Hence, while some indicators for the sector were up in 2012, others decreased, presenting a rather mixed picture for the state of the manufacturing sector as a whole in 2012.

15 Data sources

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Statistics Canada. *Table 029-0009 Capital and repair expenditures* (table). CANSIM (database). Last updated February 26, 2013. Available at *http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=0290009&paSer=&pattern=&stByVal=1&p1=1&p2=-1&tabMode=dataTable&csid=* (accessed August 22, 2013)

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